

**APR/FY06**

**YAKIMA TRAINING  
CENTER**

Washington

Army Defense Environmental  
Restoration Program  
Installation Action Plan

Final 8 August 2006

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The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

In an effort to coordinate planning information between the restoration manager, US Army Environmental Center (USAEC), Yakima Training Center, and regulatory agencies, an IAP was completed. The IAP is used to track requirements, schedules and tentative budgets for all Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following agencies contributed to the formulation and completion of this Installation Action Plan during a planning workshop held on 25 April 2006:

**Company/Installation/Branch**

Fort Lewis Installation Restoration Program

Washington State Department of Ecology

Engineering and Environment, Inc. for USAEC

USAEC

## Acronyms & Abbreviations

<b>AEDB-R</b>	Army Environmental Database- Restoration
<b>AOC</b>	Area of Concern
<b>ASP</b>	Ammunition Storage Point
<b>AST</b>	Above ground Storage Tank
<b>BRAC</b>	Base Realignment and Closure Action
<b>CC</b>	Compliance-Related Cleanup
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CMS</b>	Corrective Measures Study
<b>CMI(C)</b>	Corrective Measures Implementation (Construction)
<b>CMI(O)</b>	Corrective Measures Implementation (Operation)
<b>CTC</b>	Cost-to-Complete
<b>DERA</b>	Defense Environmental Restoration Account
<b>DMM</b>	Discarded Military Munitions
<b>DRMO</b>	Defense Reutilization and Marketing Office
<b>DSERTS</b>	Defense Site Environmental Restoration Tracking System
<b>EE/CA</b>	Engineering Evaluation Cost Analysis
<b>EPH</b>	Extractable Petroleum Hydrocarbons
<b>ER,A</b>	Environmental Restoration, Army (formally called DERA)
<b>ERM</b>	Environmental Restoration Manager
<b>FFSRA</b>	Federal Facility Site Remediation Agreement
<b>FS</b>	Feasibility Study
<b>FUDS</b>	Formerly Used Defense Site
<b>FY</b>	Fiscal Year
<b>GWM</b>	Groundwater Monitoring
<b>IAP</b>	Installation Action Plan
<b>IOC</b>	Installation Operation Command (replaced by OSC)
<b>IRA</b>	Interim Remedial Action
<b>IRP</b>	Installation Restoration Program
<b>LNAPL</b>	Light Non-Aqueous Phase Liquid
<b>LTM</b>	Long-Term Monitoring
<b>MACOMS</b>	Major Army Commands
<b>MATES</b>	Mobilization and Training Equipment Site
<b>MC</b>	Munitions Constituents
<b>MEC</b>	Munitions and Explosives of Concern
<b>MMRP</b>	Military Munitions Response Program
<b>MTCA</b>	Model Toxics Control Act
<b>MW</b>	Monitoring Well
<b>NE</b>	Not Evaluated
<b>NFA</b>	No Further Action
<b>NPDES</b>	National Pollution Discharge Elimination System
<b>OSC</b>	Operation Support Command
<b>PA</b>	Preliminary Assessment
<b>PAH</b>	Polycyclic Aromatic Hydrocarbons
<b>PEP</b>	Propellants, Explosives, Pyrotechnics
<b>PCB</b>	Polychlorinated Biphenyls

## Acronyms & Abbreviations

<b>PCE</b>	Tetrachloroethylene
<b>PLP</b>	Potentially Liable Party
<b>POL</b>	Petroleum, Oil & Lubricants
<b>QTR</b>	Quarter
<b>RA</b>	Remedial Action
<b>RA(C)</b>	Remedial Action (Construction)
<b>RA(O)</b>	Remedial Action (Operation)
<b>RAB</b>	Restoration Advisory Board
<b>RAC</b>	Risk Assessment Code
<b>RC</b>	Response Complete
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>RD</b>	Remedial Design
<b>REM</b>	Removal
<b>RFA</b>	RCRA Facility Assessment
<b>RFI</b>	RCRA Facility Investigation
<b>RI</b>	Remedial Investigation
<b>RIP</b>	Remedy-in-Place
<b>ROD</b>	Record of Decision
<b>RRSE</b>	Relative Risk Site Evaluation
<b>SI</b>	Site Inspection
<b>SSTEE</b>	Site-Specific Terrestrial Ecological Evaluation
<b>SVOC</b>	Semi-Volatile Organic Compounds
<b>SWMU</b>	Solid Waste Management Unit
<b>TCE</b>	Trichloroethylene
<b>TCLP</b>	Toxicity Characterization Leaching Procedure
<b>TPH</b>	Total Petroleum Hydrocarbons
<b>TRC</b>	Technical Review Committee
<b>TVR</b>	Tracked Vehicle Repair
<b>USACHPPM</b>	United States Army Center for Health Promotion and Preventive Medicine
<b>USAEC</b>	United States Army Environmental Center
<b>USAEHA</b>	United States Army Environmental Hygiene Agency
<b>USATHAMA</b>	United States Army Toxic and Hazardous Material Agency
<b>UST</b>	Underground Storage Tank
<b>UXO</b>	Unexploded Ordnance
<b>VPH</b>	Volatile Petroleum Hydrocarbons
<b>VOC</b>	Volatile Organic Compounds
<b>YFCR</b>	Yakima Training Center AEDB-R Code
<b>YTC</b>	Yakima Training Center

**Installation Locale:** Yakima Training Center (YTC) is a sub-installation of Fort Lewis and is located in approximately 100 air miles east of Fort Lewis. YTC encompasses approximately 323,651 acres within Yakima County, Washington and Kittitas County, Washington. The YTC population is predominantly transient soldiers performing maneuvers with few permanent residents and on-site workers (no children residents at YTC). The only significant adjacent population center is Selah to the west (population 6300).

**Installation Mission:** Provide military training facilities, maneuver areas and ranges for US and allied nations.

**Lead Organization:**

Installation Management Agency, Northwest Regional Office

**Lead Executing Agency:**

**IRP Executor:** Fort Lewis Installation Restoration Program – Public Works – Fort Lewis

**Regulatory Participation**

**State:** Washington State Department of Ecology (Ecology), Hazardous Waste and Toxics Reduction Program, Central Regional Office

**National Priorities List (NPL) Status:** Non-NPL Installation; RCRA Corrective Action from RCRA Sub X-Part B permit application (withdrawn). The Garrison Commander, Fort Lewis has been named a Potentially Liable Party (PLP) by Washington Department of Ecology for YTC.

**Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status:** Although solicited, a RAB has not been established due to lack of interest.

**Installation Program Summaries**

**IRP**

Contaminants of Concern: Metals, TCE, Petroleum Hydrocarbons, Pesticides, VOCs, SVOCs, PCBs, TPH, Dioxins

Media of Concern: Groundwater, Surface Water, Soil

Estimated date for RIP/RC: 2006/2033

Funding to date (up to FY05): \$1,984K

Current year funding (FY06): \$34K

Cost-to-Complete (FY07+): \$379K

### ***MMRP***

Primary Contaminants of Concern: UXO

Affected Media of Concern: Soil

Estimated Date for RC: 2017

Funding to date (up to FY05): \$0K

Current year funding (FY06): \$0K

Cost-to-Complete (FY07+): \$32,953K

### ***Installation Historic Activity***

YTC has been used for military maneuvers and weapons training since its establishment in 1941 as an anti-aircraft firing range. Prior to military use, the area supported livestock grazing and limited mining. In 1941 and 1942, the Army leased 160,000 acres from private landowners and various county, state, and federal agencies.

During World War II, YTC was used extensively for training artillery, infantry, and engineering units based in the Pacific Northwest. Existing Cantonment Area buildings were built in 1951 during the Korean War. During 1950 and 1951, additional land acquisitions expanded the YTC facility to approximately 261,000 acres. Subsequent additions have increased the facility to its present 323,651 acres.

YTC now houses several military or federal government tenants including the Washington Army National Guard Mobilization and Training Equipment Site, Marine and Army Reserve Centers.

YTC is an active major sub-installation of Fort Lewis. The mission of YTC is to provide military training facilities, maneuver areas and ranges for US and allied nations. The location, size, and terrain characteristics of YTC provide a highly suitable land area for advanced unit training, field exercises, maneuvers, and operational readiness training.

YTC is a non-NPL sub-installation. A Potentially Liable Party (PLP) letter was issued by Ecology in 1st Quarter FY02. Current site investigations and remediation actions are in accordance with Washington's Model Toxic Control Act A RCRA Part B permit application for treatment of un-serviceable munitions was submitted to USEPA in 1988. It was resubmitted in 1996. Fort Lewis has closed the un-serviceable munitions, however, the un-serviceable munitions treatment unit remains in interim status.

### ***IRP***

- Prior Year Progress: Remedy-in-place and/or response complete status has already been obtained for all but five YTC IRP sites (Motor Pool, Building 815, Vehicle Washracks, pre-1954 Landfill, and 1954-1968 Landfill/Burn Pits). Remedy-in-place status is expected by the end of FY06 for all five of these low RRSE sites.
- Future Plan of Action: After FY06, the only remaining actions are expected to be long-term management: monitoring at 2 sites (Motor Pool, Fire Training Area) and maintenance of institutional control at 7 sites (Motor Pool, Building 815, Vehicle Washracks, ASP Burn Pits, pre-1954 Landfill, 1954-1968 Landfill/Burn Pits, and Fire Training Pit). Additional site-specific details are included in the Cleanup Strategy Section for each site.

### ***MMRP***

- Prior Year Progress: Preliminary Assessment (PA) completed at all sites.
- Future Plan of Action: Complete the Supplemental SI and Remedial Investigations/Feasibility Studies (RI/FS) by 2008 and execute follow on phases/actions as required in the individual site cleanup strategies



# YAKIMA TRAINING CENTER

Installation Restoration Program

**Total AEDB-R IRP Sites/AEDB-R sites with Response Complete:** 51/43

***Different Site Types:***

2 Burn Areas	2 Contaminated Buildings
1 Fire/Crash Training Area	25 Firing Range
3 Landfills	3 Oil Water Separators
1 Pistol Range	2 Soil Contaminations after Tank Removal
4 Spill Site Areas	1 Underground Tank Farm
5 Unexploded Munitions/Ordnance	2 Waste Treatment Plant

***Most Widespread Contaminants of Concern:*** Metals, TCE, Petroleum Hydrocarbons, Pesticides, VOCs, SVOCs, PCBs, TPH, Dioxins

***Media of Concern:*** Groundwater, Surface Water, Soil

***Completed Removal (REM)/Interim Remedial Action (IRA)/Remedial Action (RA):***

**2003**

YFCR-46, Removal of ~2000 cy metals contaminated soil, \$90K

YFCR-53, Removal of soil and free product, \$100K

***Total IRP Funding***

Prior years (up to FY05):	\$1,984K
Current year funding (FY06):	\$ 34K
Future Requirements (FY07+):	\$ 379K
Total:	\$2,397K

***Duration of IRP***

Year of IRP Inception: 1988

Year of IRP RIP/RC: 2006/2033

Year of IRP Completion including Long-Term Management (LTM): 2033

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# IRP Contamination Assessment

## ***IRP Contamination Assessment Overview***

An Installation Assessment Report for YTC was completed in September 1983. YTC was listed on the Federal Agency Hazardous Waste Compliance Docket in 1988. As a result of this listing, the Installation Restoration Program for YTC was initiated and the CERCLA investigation process began. In June 1991, a Preliminary Assessment (PA) was completed and submitted to USEPA, who subsequently requested further information regarding the sites identified in the PA. To provide this information, a Site Investigation (SI) was initiated in 1992 and submitted to USEPA in September 1993. Following the SI, it was determined that YTC did not score high enough for proposal to the National Priority List.

In response to a RCRA Part A/B Permit Application for an Open Burning/Open Detonation Range, USEPA completed a RCRA Facility Assessment (RFA) in 1995. The 1995 RFA identified 77 solid waste management units (SWMUs) and 38 areas of concern (AOCs). The Fort Lewis Installation Restoration Program is addressing those sites recommended for RCRA corrective action following the 1995 RFA (including the 8 IRP-funded sites) as a voluntary action under Washington's Model Toxics Control Act (MTCA) in coordination with Washington State Department of Ecology's Hazardous Waste and Toxics Reduction Program.

Of the 8 IRP-funded sites, response complete status has been obtained for one site (Ammunition Storage Point) and remedy-in-place status has been obtained for two sites (Ammunition Storage Point Burn Pits and Fire Training Area). Actions have been underway since 2004 to collect the necessary data to obtain response complete or remedy-in-place status for the other 5 IRP-funded sites by FY06.

## ***IRP Cleanup Exit Strategy***

Remedy-in-place and/or response complete status has already been obtained for all but five YTC IRP sites (Motor Pool, Building 815, Vehicle Washracks, pre-1954 Landfill, and 1954-1968 Landfill/Burn Pits). Remedy-in-place status is expected by the end of FY06 for all five of these low RRSE sites. After FY06, the only remaining actions are expected to be long-term management: monitoring at 2 sites (Motor Pool, Fire Training Area) and maintenance of institutional control at 7 sites (Motor Pool, Building 815, Vehicle Washracks, ASP Burn Pits, pre-1954 Landfill, 1954-1968 Landfill/Burn Pits, and Fire Training Pit). Additional site-specific details are included in the Cleanup Strategy Section for each site.

### 1991

- Preliminary Assessment Yakima Firing Center, Shapiro and Associates, Inc, Feb

### 1993

- Site Investigation Report Yakima Training Center Yakima, WA, Ecology and Environment, Oct

### 1995

- Final Report YTC Project Yakima Health District, Fort Lewis, Mar
- RCRA Facility Assessment Preliminary Assessment Report for Yakima Training Center, SAIC, Jul
- Yakima Training Center Investigation and Survey 1995 RCRA Facility Assessment (RFA), Ogden, Dec

### 1996

- Independent Remedial Action Report Former Yakima Bldg No 434 YTC, USACE, Jul
- Current site Conditions Report Building T-301, T-301-1 YTC Final Report, Shannon & Wilson, Oct
- Relative Risk Site Evaluations for Yakima Training Center, Pacific Northwest National Laboratory, Nov

### 2001

- Volume 2 RCRA Facility Investigation Report YTC SWMU 59, SWMU 26, SWMU 27, AOC 4, Shannon & Wilson, Apr
- Volume 1 RCRA Facility Investigation Report YTC POL YARD AOC 4, Shannon & Wilson, Oct

### 2003

- Final RCRA Facility Investigation Report Former Vehicle Washrack AOC 3 Yakima Training Center, Hart Crowser, Mar
- Final RCRA Facility Investigation Report Former Hazardous Waste Battery Storage Area SWMU 4 Yakima Training Center, Hart Crowser, Mar
- Final RCRA Facility Investigation Report Former Storage Area PW Pesticide Storage Area SWMU 5 Yakima Training Center, Hart Crowser, Mar
- Final RCRA Facility Investigation Report Former Landfill/ Burn Pit SWMU 57 Yakima Training Center, Hart Crowser, Mar
- Final RCRA Facility Investigation Report Former Transformer Storage Area Public Works SWMU 6 Yakima Training Center, Hart Crowser, Mar
- Final RCRA Facility Investigation Report Former Storage Area PW PCS Containerized Soil SWMU 8 Yakima Training Center, Hart Crowser, Mar
- Closure Certification Report for the Unserviceable Munitions Treatment Unit, URS, Aug
- Volume 1 RCRA Facility Investigation Report YTC ASP Burn Pits SWMU 27, Shannon & Wilson, Oct

### **2003 (cont.)**

- Volume 1 RCRA Facility Investigation Report YTC Ammunition Storage Point SWMU-26, Shannon & Wilson, Nov
- Volume 1 RCRA Facility Investigation Report YTC Fire Training Pit (SWMU 59), Shannon & Wilson, Nov

### **2004**

- Closure Report for Remedial Action Various IRP Sites at Yakima Training Center, Bay West, Jan
- Final Site Investigation Report for Yakima Training Center, Calibre, Jul
- Field Activity Report Buried Munitions Area AOC 7, Pacific Northwest National Laboratory, Sep

### **2005**

- Field Activity Report for Surface Clearance and Geophysical Investigation White Phosphorous Pit SWMU 60, Pacific Northwest National Laboratory, May
- Munitions and Explosives of Concern for Yakima Training Center, Battelle, Sep
- Final GWM Report - FTP/TVR (January 2004 Event), Fort Lewis (Bussey), Nov
- Draft GWM Report - FTP/TVR (March & Aug 2005 Events), Fort Lewis (Bussey), Dec

### **2006**

- Terrestrial Ecological Evaluations YTC Sites, Pacific Northwest National Laboratory, Apr

# YAKIMA TRAINING CENTER

Installation Restoration Program

Site Descriptions

**MOTOR POOL (BLDG. 319) (PAGE 1 OF 2)****SITE DESCRIPTION**

The Building 318/319 Site includes both the former Building 319 Vehicle Washrack (AOC 2) and the Building 318 Transportation Motor Pool Area hazardous materials storage area (AOC 5). The site is an active DERA site because RCRA corrective action was recommended for both AOC 2 and AOC 5 following the 1995 RFA. Although there is no evidence of a release from AOC 2, recommended RCRA corrective action was to sample soils to “determine if there are elevated levels of metals or hydrocarbons present from washing vehicles.” This recommendation was based solely on the suspicion that other washracks at YTC might have had releases to soil. The potential concern documented in the 1995 RFA for AOC 5 was the occasional placement of drums in areas without secondary containment and a reported leak from an adjacent AST (even though the leak was cleaned up). Recommended RCRA corrective action following the 1995 RFA was to sample the area around the storage shed “to determine if any releases to soil have occurred.” RCRA corrective action sites are dealt with in Washington by regulations promulgated under the Model Toxics Control Act (MTCA). The only investigation to date of either AOC 2 or AOC 5 was the installation of two monitoring wells (MWs) adjacent to the Marie Well during a 1993 SI.

Investigation activities include a 1993 SI and 2005 SI. No evidence of a release was detected at or around either AOC 2 or AOC 5. No further action is recommended for AOC 2 and AOC 5 in a pending draft Decision Document by Fort Lewis IRP.

**TCE Plume(s):** At the May 2004 IAP Workshop, the AEC ERM decided that the TCE plume(s) in the Selah Interbed Aquifer underneath the main Cantonment Area (YFCR-41 may be one of the TCE sources) will be administratively addressed as part of YFCR-01. This decision was based on fact that the furthest downgradient MWs installed for the TCE plume(s) are located at the Building 318/319 Site.

Groundwater monitoring events conducted in March 1993, January 2004, March 2005, August 2005, and March 2006 have confirmed the presence of a TCE plume(s) in the Selah Interbed Aquifer in the vicinity of Building 845 and Building 951. Potential future drinking water receptors include the YTC Pomona Well, the Pomona Artesian Irrigation Company (PAIC) Well, and any future drinking water wells installed off-post in the Selah Interbed Aquifer. Although TCE is present above 5 µg/L in the Selah Interbed Aquifer MWs installed adjacent to the Pomona Well and PAIC Well, both water supply wells draw

**STATUS**

**REGULATORY DRIVER:** RCRA, Subtitle C: Hazardous Wastes

**RRSE:** Low

**CONTAMINANTS OF CONCERN:** TCE, Petroleum Hydrocarbons, Metals,

**MEDIA OF CONCERN:** Soil, Groundwater

Phases	Start	End
RFA .....	199009 .....	199106
CS .....	199205 .....	199508
<b>RFI/CMS .....</b>	<b>200204 .....</b>	<b>200508</b>
LTM .....	200509 .....	203309

**RC: 200509**

## YFCR-01

# MOTOR POOL (BLDG. 319) (PAGE 2 OF 2)

water from a basalt aquifer that is at least 250 feet deeper than the Selah Interbed Aquifer. Furthermore, numerous analytical results from the Pomona Well and PAIC Well (including results from March 2006) have confirmed that no TCE is present in either water supply well. It is unlikely that a future off-post water supply would be impacted by the TCE plume(s) since the plume(s) are currently delineated to below 5 µg/L at the installation boundary and the plume(s) appear to be stable.

Suspected sources of TCE contamination from Building 845 are five former waste oil USTs and a former floor drain. Three of the five USTs were clean closed in October 1993. However, contamination was left in place on the north and east sidewalls of the USTs 845-3 and 845-4 (YFCR-41) to prevent undermining existing structures. The source of TCE in the Building 951 area is likely an unknown historical operation since the only currently known potential source at Building 951 was a waste oil tank that was clean closed and Building 951 is located upgradient of Building 845.

A remedy of land use controls for groundwater use planning within the TCE plume boundary, land use controls for land use planning at UST 845-3/845-4, and long-term GWM (as described below) is recommended in a pending draft Decision Document by Fort Lewis IRP.

### CLEANUP STRATEGY

*a. LTM.* Fort Lewis IRP plans to conduct semi-annual GWM events for the 15 existing on-site MWs, Pomona Well, and PAIC Well for the foreseeable future. It is estimated that 32 VOC samples will be collected during each year.

*b. Well Decommissioning.* Fort Lewis IRP plans to eventually decommission 15 MWs (TVR-1 through TVR-7, MTS-1 through MTS-4, MMP-1, MMP-2, 815-2, and ARC-2).



**SITE DESCRIPTION**

Former Building 815 (SWMU 5), which was located in the Public Works Yard, was used for pesticide storage. Mixing, storage, rinsing, and loading of pesticides occurred inside the northwest corner of the former building and outside the back door (north side) of the building. In addition, the pesticide truck was cleaned on the west side of the building. Secondary containment was not used for any of these operational practices. The building, used from 1951 to 1988, was destroyed by fire in October 1990. The building was not being used for pesticide storage at the time of the fire. The site is an active DERA site because RCRA corrective action to investigate soil for potential releases was recommended following the 1995 RFA. The primary investigation of the site is a March 2003 SI. Surface and subsurface soils were collected from eight soil borings advanced at the site as well as nearby SWMU 4.

**STATUS**

**REGULATORY DRIVER:** RCRA, Subtitle C: Hazardous Wastes

**RRSE:** Low

**CONTAMINANTS OF CONCERN:** Metals, Pesticides

**MEDIA OF CONCERN:** Soil

Phases	Start	End
RFA .....	199001 .....	199106
CS.....	199205 .....	199508
<b>RFI/CMS.....</b>	<b>200410 .....</b>	<b>200609</b>
LTM .....	200610 .....	200709

**RC: 200609**

The only potentially complete and significant exposure pathway at the site is human direct contact with soil. The maximum detected concentrations of dieldrin and lead are above the MTCA Method A/Standard Method B cleanup levels for the potential direct contact pathway (which are based on conservative exposure assumptions for a child), but are well below the MTCA Standard Method C cleanup levels for the potential direct contact pathway (which are based on conservative exposure assumptions for an adult). The leaching to groundwater pathway is incomplete based on empirical demonstration using groundwater results from on-site MWs. The potential migration to surface water pathway is potentially complete, but insignificant given the annual precipitation, distance to potential receptors, and site soil concentrations. The potential migration to air pathway via soil vapors is incomplete since the contaminants are not volatile. The potential migration to air pathway via fugitive dust is potentially complete, but insignificant since fugitive dust cleanup levels for these contaminants are insignificant compared to direct contact cleanup levels. The potential terrestrial ecological pathway is incomplete based on an April 2006 Site-Specific Terrestrial Ecological Evaluation.

Based on the absence of children at YTC under current and anticipated likely future land use, potential human receptors are limited to adults. Since the maximum detected contaminant concentrations are well below conservative cleanup levels for adults, the site does not pose an unacceptable risk or hazard.

A remedy of land use controls on residential land use within the site boundary is recommended in a pending draft Decision Document by Fort Lewis IRP because MTCA

regulations require land use controls whenever a residential land use scenario is not assumed.

### **CLEANUP STRATEGY**

*Well Decommissioning.* Fort Lewis IRP plans to decommission two of the three on-site MWs (the third MW will be used for LTM at YFCR-01).

# YFCR-34 VEHICLE WASHRACK

## SITE DESCRIPTION

The Vehicle Washrack Site includes two former washracks (AOC 1 and AOC 3):

**AOC 1** is the former main vehicle washrack located south of Building 845 on Cold Creek Road. According to the 1995 RFA, the washrack was in use from 1968 to 1980. Although effluent from the washrack was covered by a NPDES-permitted discharge following treatment in settling basin, the site is an active DERA site because RCRA corrective action was recommended following the 1995 RFA. Although there is no evidence of a hazardous substance release from AOC 1 other than questionable sampling results collected from the settling basin, recommended RCRA corrective action was to sample soils to “determine if there are elevated levels of metals or hydrocarbons present from washing vehicles.” RCRA corrective action sites are dealt with in Washington by regulations promulgated under the Model Toxics Control Act (MTCA). Fort Lewis IRP conducted a SI in 2005. No evidence of a release was detected during the SI. No further action is recommended in a pending draft Decision Document by Fort Lewis IRP.

**AOC 3** (photo below) is a former Public Works washrack that is located in the Public Works Yard, south of former Building 812. This washrack was used from 1951 to 1980, when the use was greatly reduced. The site is an active DERA site because RCRA corrective action was recommended following the 1995 RFA. Recommended RCRA corrective action following the 1995 RFA was to sample the area around the storage shed “to determine if any releases to soil have occurred.” RCRA corrective action sites are dealt with in Washington by regulations promulgated under the Model Toxics Control Act (MTCA). The only investigation completed at the site is a March 2003 SI. Surface and subsurface samples were collected from seven borings advanced during the SI. There was a single exceedance of MTCA Method A/Standard Method B cleanup levels detected during the SI. A remedy of land use controls on residential land use at the sample location is recommended in a pending draft Decision Document by Fort Lewis IRP because MTCA regulations require land use controls whenever a residential land use scenario is not assumed.

## CLEANUP STRATEGY

No further action is planned beyond maintenance of land use controls for AOC 3.

## STATUS

**REGULATORY DRIVER:** RCRA,  
Subtitle C: Hazardous Wastes

**RRSE:** Low

**CONTAMINANTS OF CONCERN:**  
Petroleum Hydrocarbons, Metals

**MEDIA OF CONCERN:**  
Soil, Surface Water

Phases	Start	End
RFA .....	199009 .....	199106
CS.....	199205 .....	199508
RFI/CMS .....	200204 .....	200609

**RC: 200609**

# YFCR-47 ASP BURN PITS

## SITE DESCRIPTION

The Ammunition Storage Point (ASP) Burn Pits Site (SWMU 27) is located southeast of the YTC Cantonment Area within the fenced and secured ASP complex, which has significantly stricter access restrictions than the military installation at-large. The site was included in the 1995 RFA because "ammunition packing materials including wood that was reportedly treated with pentachlorophenol" were burned in unlined burn pits. Four burn pits, which each have a dimension of approximately 100-feet-long by 20-feet-wide, were apparently used from an unknown start date until they were backfilled with soil in 1985. Recommended RCRA corrective action following the 1995 RFA was to sample site soils "to determine if pentachlorophenol or any by-products such as dioxin are still present." RCRA corrective action sites are dealt with in Washington by regulations promulgated under the Model Toxics Control Act (MTCA).

The primary investigation activity completed at the site to date is an October 2001 SI. The only potential human exposure pathway is potential direct contact with soil by humans as documented in a January 2005 draft Decision Document. The potential terrestrial ecological pathway is incomplete based on an April 2006 Site-Specific Terrestrial Ecological Evaluation. A remedy of land use controls is recommended in a January 2005 draft Decision Document by Fort Lewis IRP. Concurrence from Ecology, AEC, and USACHPPM is being sought.

## CLEANUP STRATEGY

*Well Decommissioning.* Fort Lewis IRP plans to decommission one MW.

## STATUS

**REGULATORY DRIVER:** RCRA, Subtitle C: Hazardous Wastes

**RRSE:** Low

**CONTAMINANTS OF CONCERN:** PCBs, TPH, Metals, Dioxins, VOCs, SVOCs

**MEDIA OF CONCERN:** Soil

Phases	Start	End
RFA .....	199501 .....	199510
RFI/CMS .....	199801 .....	200501
LTM .....	200610 .....	200709

**RC: 200501**

# YFCR-49

## ORIGINAL LANDFILL (PRE-1954)

### SITE DESCRIPTION

The pre-1954 Landfill (SWMU 54) is located in the southeast portion of the Cantonment area between the Jordan Well, 600,000-gallon water reservoir, and the ASP. Based on historical documentation, review of aerial photographs, and site reconnaissance activities, the landfill appears to consist of two relatively small areas in which refuse was placed adjacent to small ephemeral streams. The total landfill area is on the order of 10,000 square feet. The year when the landfill was first used is unknown, but may have been during the World War II use of YTC or during the permanent build-up of the Cantonment area in the early 1950s. As the name implies, the landfill was used until 1954. No information is available regarding the waste stream or the quantity of waste disposed of at the site. Landfill closure activities apparently consisted of covering the refuse with an unknown depth of native soil since little to no refuse is exposed at the surface. The site is not currently being used by YTC.

### STATUS

**REGULATORY DRIVER:** RCRA, Subtitle C: Hazardous Wastes

**RRSE:** Low

**CONTAMINANTS OF CONCERN:** VOCs, SVOCs, Metals

**MEDIA OF CONCERN:** Soil, Groundwater

Phases	Start	End
RFA .....	199501 .....	199510
CS.....	200201 .....	200609
LTM .....	200610 .....	200709

**RC: 200609**

The only potentially complete and significant exposure pathway at the site is human direct contact with soil. The leaching to groundwater pathway is incomplete based on empirical demonstration using groundwater results from on-site MWs. The potential migration to surface water pathway is incomplete since the landfill refuse is buried, the potential migration to air pathway via soil vapors is incomplete since the contaminants are not volatile. The potential migration to air pathway via fugitive dust is incomplete since the landfill refuse is buried, but insignificant since fugitive dust cleanup levels for these contaminants are insignificant compared to direct contact cleanup levels. The potential terrestrial ecological pathway is potentially complete, but insignificant as documented in a 10 February 2006 letter to Ecology.

A remedy of land use controls is recommended in a pending draft Decision Document by Fort Lewis IRP.

### CLEANUP STRATEGY

*Well Decommissioning.* Fort Lewis IRP plans to decommission five MWs.

**LANDFILL/BURN PIT (1954-1968) (PAGE 1 OF 2)****SITE DESCRIPTION**

The 1954-1968 Landfill/Burn Pits (SWMU 57) are located in the northwest portion of the Cantonment area, approximately 0.1 miles north of the National Guard building. Waste generated in the Cantonment Area and by training troops was burned and disposed of in unlined pits in this area between 1954 and either 1968 or 1974. Based on aerial photography and surface features, it appears that a total of up to 7 trenches were used during the life of the site. A conservative estimate of total site is approximately 150,000 square feet. Waste materials burned and disposed of at the site could have included tank batteries, painting waste, vehicle maintenance equipment and supplies. The estimated quantity of waste burned and disposed of at the site apparently ranged from 5 cubic yards in the winter to 600 cubic yards in the summer. Landfill closure activities apparently consisted of covering the refuse with an unknown depth of native soil; however, it could be assumed, based on the 5 test pits excavated during the 2003 SI, that the soil cover is at least 1.5 feet thick. The site is not currently being used by YTC.

**STATUS**

**REGULATORY DRIVER:** RCRA, Subtitle C: Hazardous Wastes

**RRSE:** Low

**CONTAMINANTS OF CONCERN:** Metals, VOCs, SVOCs, Petroleum Hydrocarbons

**MEDIA OF CONCERN:** Soil, Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA .....	199501 .....	199601
<b>RFI/CMS.....</b>	<b>200201 .....</b>	<b>200609</b>
LTM .....	200610 .....	200709

**RC: 200609**

Investigation and assessment activities at the site include a 2002 SI and a FY05 groundwater SI. During the 2002 SI, five test pits were excavated in locations where trenches were identified. Burned municipal waste was found in all test pits. Samples were collected directly from the refuse layer within the landfill/burn pits. The only potential MTCA Method B exceedances detected during the SI for the potential direct contact pathway were antimony and lead at maximum concentrations of 102J mg/kg and 1040 mg/kg, respectively.

The only potentially complete and significant exposure pathway at the site is human direct contact with soil. The leaching to groundwater pathway is incomplete based on empirical demonstration using groundwater results from on-site MWs. The potential migration to surface water pathway is incomplete since the landfill refuse is buried, the potential migration to air pathway via soil vapors is incomplete since the contaminants are not volatile. The potential migration to air pathway via fugitive dust is incomplete since the landfill refuse is buried, but insignificant since fugitive dust cleanup levels for these contaminants are insignificant compared to direct contact cleanup levels. The potential terrestrial ecological pathway is potentially complete, but insignificant as documented in a 10 February 2006 letter to Ecology.

## LANDFILL/BURN PIT (1954-1968) (PAGE 2 OF 2)

A remedy of land use controls is recommended in a pending draft Decision Document by Fort Lewis IRP.

### CLEANUP STRATEGY

*Well Decommissioning.* Fort Lewis IRP plans to decommission five MWs.



# YFCR-53 FIRE TRAINING AREA

## SITE DESCRIPTION

The former Fire Training Pit Site (SWMU 59) is located in the northeast portion of the YTC Cantonment Area. The Fire Training Pit was apparently used to practice extinguishing fires two or three times per year from an unknown start date until 1987 (with a single training event in 1990). Common practice for each practice event was apparently to saturate the open, unlined earthen pit with water, then add and ignite 500 to 1,000 gallons of waste JP-4 aviation fuel, diesel fuel, or MOGAS before extinguishing the fire. The site is not currently being used by YTC.

The site chronology includes a 1993 SI, a 2001 SI, a 2003 soil removal action, a site-specific terrestrial ecological evaluation, and groundwater monitoring (GWM) events between January 2004 and present. The 1993 and 2001 SIs indicated the presence of TPH-related contamination in soil and shallow, perched groundwater. A total of five shallow MWs were installed in the 1993 and 2001 SIs. During the 2003 soil removal action, approximately 1,350 tons of petroleum contaminated soil was removed. This interim remedial action removed all accessible soil with TPH concentrations above MTCA Method A cleanup levels for the potential direct contact and leaching to groundwater pathways. Despite the 2003 soil removal action, residual TPH contamination remains in shall perched groundwater immediately downgradient of the former fire training pit.

A final remedy of land use controls on groundwater use planning and long-term GWM (as described below) is recommended in a pending draft Decision Document by Fort Lewis IRP.

## CLEANUP STRATEGY

a. *LTM*. Fort Lewis IRP plans to conduct GWM events from the 5 existing on-site MWs for the foreseeable future (unless contaminant concentrations in FTP-1 fall below MTCA Method A cleanup levels). It is estimated that 6 VOC, SVOC, TPH-G, and TPH-Dx samples will be collected during each GWM event (5 primary samples + 1 QC sample).

b. *Well Decommissioning*. Fort Lewis IRP plans to eventually decommission the 5 shallow on-site MWs.

## STATUS

**REGULATORY DRIVER:** RCRA, Subtitle C: Hazardous Wastes

**RRSE:** High

**CONTAMINANTS OF CONCERN:** Petroleum Hydrocarbons, Metals, SVOCs, VOCs

**MEDIA OF CONCERN:** Soil, Groundwater

Phases	Start	End
RFA .....	199501 .....	199510
RFI/CMS .....	199801 .....	200112
DES .....	200201 .....	200303
CMI(C) .....	200304 .....	200409
LTM .....	200409 .....	203009

**RC: 200409**



## IRP No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
YFCR-02	SEWAGE TREATMENT PLANT LAB	Site is still active and ineligible for ER,A funds	199603
YFCR-03	PHOTO LAB	RC Pending, no contamination expected	199106
YFCR-04	RANGE 1 (RIFLE)	Site is still active and ineligible for ER,A funds	199603
YFCR-06	RANGE 3 (PISTOL)	Site is still active and ineligible for ER,A funds	199603
YFCR-07	RANGE 4 (TANK GUNNERY)	Site is still active and ineligible for ER,A funds	199603
YFCR-08	RANGE 5 (TANK GUNNERY)	Site is still active and ineligible for ER,A funds	199603
YFCR-09	RANGE 7 (M79/203)	Site is still active and ineligible for ER,A funds	199603
YFCR-10	RANGE 10 (M79/203 TRAINING)	Site is still active and ineligible for ER,A funds	199603
YFCR-11	RANGE 9 (HAND GRENADE)	Site is still active and ineligible for ER,A funds	199603
YFCR-12	RANGE 10 (TPT AMMO)	Site is still active and ineligible for ER,A funds	199603
YFCR-13	RANGE 10 Z (UNK)	Site is still active and ineligible for ER,A funds	199603
YFCR-14	RANGE 11 (M16/M60)	Site is still active and ineligible for ER,A funds	199603
YFCR-15	RANGE 12 (M60)	Site is still active and ineligible for ER,A funds	199603
YFCR-16	RANGE 13 (AERIAL GUNNERY)	Site is still active and ineligible for ER,A funds	199603
YFCR-17	RANGE 13 (106 REC RIFLE)	Site is still active and ineligible for ER,A funds	199603
YFCR-18	RANGE 15 (TANK GUNNERY)	Site is still active and ineligible for ER,A funds	199603
YFCR-19	RANGE 16 (AERIAL)	Site is still active and ineligible for ER,A funds	199603
YFCR-20	RANGE 17 (AERIAL GUNNERY)	Site is still active and ineligible for ER,A funds	199603
YFCR-21	RANGE 18 (TANK GUNNERY)	Site is still active and ineligible for ER,A funds	199603

## IRP No Further Action Sites Summary (cont.)

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
YFCR-22	RANGE 20 (UNK)	Site is still active and ineligible for ER,A funds	199603
YFCR-24	RANGE 22 (AERIAL GUNNERY)	Site is still active and ineligible for ER,A funds	199603
YFCR-25	RANGE 22C (UNK)	Site is still active and ineligible for ER,A funds	199603
YFCR-26	RANGE 23 (SQUAD)	Site is still active and ineligible for ER,A funds	199603
YFCR-27	RANGE 24 (BTN SIZE)	Site is still active and ineligible for ER,A funds	198309
YFCR-28	RANGE 26 (AERIAL GUNNERY)	Site is still active and ineligible for ER,A funds	198309
YFCR-29	RANGE 27 (AERIAL FUNNERY)	Site is still active and ineligible for ER,A funds	199603
YFCR-30	RANGE 28 (DEMO AREA)	Site is still active and ineligible for ER,A funds	199603
YFCR-31	RANGE 30 (UNK)	Site is still active and ineligible for ER,A funds	199603
YFCR-33	SANITARY WASTE TREATMENT PLANT	Site is still active and ineligible for ER,A funds	199603
YFCR-34	VEHICLE WASHRACK	Pending draft Decision Document by Fort Lewis IRP. Although no funding needed, maintenance of LUCs is a remaining action.	200609
YFCR-35	SOLID WASTE LANDFILL	Because of operational dates, site is ineligible for ER,A funds	199806
YFCR-36	ACTIVE RANGE #4	Site is still active and ineligible for ER,A funds	199603
YFCR-37	ACTIVE RANGE #1	Site is still active and ineligible for ER,A funds	199603
YFCR-39	BURN AREAS (AT ARTILLERY FIRING POINTS	Site is still active and ineligible for ER,A funds	199603
YFCR-40	RANGE 2 (PISTOL AND MG)	Site is still active and ineligible for ER,A funds	199603
YFCR-41	FORMER MATES FACILITY (BLDG. 845)	Administratively combined with YFCR-01.	199509

## IRP No Further Action Sites Summary (cont.)

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
YFCR-42	MATES FACILITY (BLDG. 951)	Site is still active and ineligible for ER,A funds	199603
YFCR-43	TANK MAINTENANCE (BLDG. 851)	Site is still active and ineligible for ER,A funds	199509
YFCR-44	VEHICLE MAINTENANCE (BLDG. 806)	Site is still active and ineligible for ER,A funds	199509
YFCR-45	PJP4 BLADDER SITE (NEAR BLDG. 450)	April 1996 letter from Fort Lewis Public Works to Ecology	199612
YFCR-46	AMMUNITION STORAGE POINT	Pending draft Decision Document by Fort Lewis IRP.	200309
YFCR-48	PESTICIDE STORAGE (BLDG. 975)	Site is still active and ineligible for ER,A funds	199603
YFCR-51	LANDFILL PITS	February 2006 memo	200305
YFCR-52	BURIED MUNITION AREA (BLDG. 217)	September 2004 PNNL SI Report	199603
YFCR-54	WASHRACK USTS	Site is still active and ineligible for ER,A funds	199310

**Initiation of IRP:** 16 November 1988

### **Past Phase Completion Milestones**

#### **1983**

Installation Assessment Report, Sep 83

#### **1991**

PA, Jun 91

#### **1995**

SI at YFCR-01, 32, 34, 35, 41, 45, 46, 47, 48, 49, 50, 51, 52, 53, Aug 95  
RFA, Jul 95

#### **2003**

RD/RA at YFCR-46 and YFCR-53 – Soil removal

#### **2004**

SI: YFCR-49, YFCR-50

#### **2005**

SI: YFCR-01, YFCR-34  
RISK: YFCR-47

#### **2006**

SI: YFCR-32

### **Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates:** 2006

- DDs pending to select remedy of NFA at following sites: YFCR-01 (AOC 2/5 portion), YFCR-34 (AOC 1 portion), and YFCR-46
- DDs pending to select remedy of land use controls at following sites: YFCR-32, YFCR-34 (AOC 3 portion), YFCR-47, YFCR-49, and YFCR-50
- DDs pending to select remedy of land use control and groundwater monitoring at following sites: YFCR-01 (TVR portion) and YFCR-53

**Schedule for Next Five-Year Review:** None

**Estimated Completion Date of IRP (including LTM phase):** 2034

## Yakima Training Center IRP Schedule

(Based on current funding constraints)

AEDB-R #	PHASE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
YFCR-01	LTM									203309
YFCR-32	LTM									
YFCR-47	LTM									
YFCR-49	LTM									
YFCR-50	LTM									
YFCR-53	LTM									203009

*Prior Years Funds (may be listed by project instead of site)*

**Total funding up to FY04: \$1,833K**

Year	Site Information	Expenditures	FY Total
<b>FY05</b>	YFCR-01 LTM	4K	
	YFCR-32 RI	93K	
	YFCR-49 RI	25K	
	YFCR-50 RI	25K	
	YFCR-53 LTM	4K	<b>\$151K</b>

**Total Funding up to FY05: \$1,984K**

*Current Year Requirements*

Year	Site Information	Expenditures	FY Total
<b>FY06</b>	YFCR-01 LTM - GWM	4K	
	YFCR-32 CMS - LUC, quarterly GWM	22K	
	YFCR-53 LTM - semi-annual GWM	8K	<b>\$34K</b>

**Total Funding FY06: \$34K**

**Total Future Requirements: \$379K**

**Total IR Program Cost (from inception to completion of the IRP): \$2,397K**

# YAKIMA TRAINING CENTER

Military Munitions Response Program

**Total AEDB-R MMRP Sites/AEDB-R sites with Response Complete:** 8/0

**AEDB-R Site Types**

4 Small Arms Range

4 UXO

**Most Widespread Contaminants of Concern:** UXO

**Media of Concern:** Soil

**Completed REM/IRA/RA:** None

**Total MMRP Funding**

Prior years (up to FY05): \$ 0K

Current Year (FY06): \$ 0K

Future Requirements (FY07+): \$32,953K

Total: \$32,953K

**Duration of MMRP**

Year of MMRP Inception: 2002

Year of MMRP RC: 2017

Year of MMRP Completion Including LTM: 2047



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# MMRP Contamination Assessment

## ***MMRP Contamination Assessment Overview***

In 2001, DoD created the MMRP to address human health, safety, and environmental concerns at defense sites that were once used to develop, test, and deploy weapons systems and military munitions. The FY02 Defense Authorization Act required an inventory of all defense sites known or suspected to contain UXO-DMM-MC at all Active and BRAC Properties, and FUD Sites where the release occurred prior to 30 September 2002.

*Military Munitions* means all ammunition products and components produced for or used by the armed forces for national defense and security, including confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components, thereof. The term does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components, except that the term does include non nuclear components of nuclear devices that are managed under the nuclear weapons program of the DoE after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed.

The Army Range Inventory identified 14 MMRP eligible sites at Fort Lewis and 8 at YTC. The Phase 3 Inventory Report completed in FY2003 is considered the PA. The SI will consist of collecting necessary information to make a decision if the following actions are warranted at the site:

- MMRP RI/FS
- IRA
- NFA

The SI is not intended to fully characterize the nature extent of contamination, but does require sufficient site-specific information to prepare a Munitions Response Site Prioritization Protocol, which is a combined analysis of munitions and chemical risks potentially posed by a site.

The SI will include a visual survey or, where warranted, a surface survey with magnetometer for MEC. Soil sampling for MC (metals and explosives) will be focused on those areas considered most likely to have been affected by past munitions use. Field activities may also include geophysical surveys for MEC burials, surface water and sediments sampling for MC, groundwater sampling from existing wells for MC and additional testing for unique MC parameters. Where available, appropriate existing site data will be used for SI reporting At Fort Lewis, SI field work is anticipated to begin in June 2006. We expect the Draft SI Report in December 2006 and the final should be ready for approval in March 2007.

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## MMRP Contamination Assessment

### ***MMRP Cleanup Exit Strategy***

Preliminary Assessments were conducted in FY03. Remedial actions will be determined by Site Investigations, scheduled in FY06.

### 2003

- Final US Army Closed, Transferred and Transferring Range/Site Inventory for Yakima Training Center, Washington, engineering-environmental Management, Inc., July

# YAKIMA TRAINING CENTER

Military Munitions Response Program

Site Descriptions

# YTCR-001-R-01

## CANTONMENT-DMM AREA

### SITE DESCRIPTION

The Cantonment - DMM Area range encompasses 1.02 acres. According to personal interviews with Yakima Training Center personnel, the areas around Buildings 217 and 218 were used as a discarded military munitions area during the training center's early years, 1941-1951. Buildings 217 and 218 are located within the Cantonment Area. Yakima personnel indicate UXO-DMM-MC exists throughout the area. Types and amounts of UXO-DMM-MC that are possibly present are small arms, bazooka rounds, and bangalore torpedoes. Office buildings currently lie within the cantonment area.

No evidence of UXO was discovered during a 2004 geophysical investigation (OMA funds).

### CLEANUP STRATEGY

No evidence of DMM was discovered in uncovered areas of site during a 2004 geophysical investigation (OMA funds). Possibility of DMM exists under concrete slab buildings. Thus, Fort Lewis ERP has selected remedy of land use controls on possible future building deconstruction and has received concurrence from Washington State Department of Ecology.

### STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Serious Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

Phases	Start	End
PA .....	200212 .....	200307
SI .....	200606 .....	200709

**RC:** 200709

# YTCR-002-R-01

## RANGE #1

### SITE DESCRIPTION

According to a Yakima Training Center range fan map dated 1962, Range #1 and Range #4 fans overlap and extend over the Selah Canyon Reserve. This area is a canyon and undeveloped. Range #1 encompasses 6.4 acres and is located north of the 1960's cantonment area and just east of Yakima's western border. This range was used as a rifle or small arms range from 1962-1970. The firing point of Range #1 is located in what is now the present-day cantonment area, according to current Yakima Training Center boundary map dated 2001. No known UXO/OE responses have occurred in the Range #1 area.

### CLEANUP STRATEGY

Additional investigation will determine remedial action.

### STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Negligible Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA .....	200212 .....	200307
RI/FS .....	201110 .....	201209
RD .....	201610 .....	201709
RA(C) .....	201710 .....	201809

**RC: 201809**

# YTCR-003-R-01 RANGE #1, #3, AND #4

## SITE DESCRIPTION

Range #1, #3 and #4 encompass 940.04 acres of what is now the Selah Canyon Reserve and is undeveloped. This closed range area is located near the western boundary of Yakima Training Center, northeast of the 1960's cantonment area. This range area was used from 1962-1970 for small arms and rifle practice, artillery firing, and as a small-caliber machine gun range. The firing points were located in what is now the cantonment area for Range #1 and Range #4, and just east of the current cantonment area in the operational range area for Range #3. There has been no UXO cleanup completed in this area. All three ranges were evaluated under AEDB-R (Range #1 - YFCR-04, Range #3 - YFCR-06, Range #4 - YFCR-07) with a preliminary assessment.

## CLEANUP STRATEGY

Site Investigations will determine remedial action. UXO removal is expected.

## STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Low Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA .....	200212 .....	200307
SI .....	200610 .....	200709
RI/FS .....	201110 .....	201209
RD .....	201510 .....	201609
RA(C) .....	201610 .....	201709
LTM .....	201710 .....	204709

**RC: 201709**

**YTCR-004-R-01**  
**RANGE #1, #4- TD**

**SITE DESCRIPTION**

**This site has been recommended for FUDS, FDE Task 2.**

Range #1, #4 - TD encompasses 5.68 acres of land transferred to the Washington State Department of Transportation. The transferred property is currently used as a scenic overlook along Highway 82 on the western side of the Yakima Training Center. The property was transferred to the State of Washington in the 1970's. Historically this range area was used from 1962-1970 for small arms and small caliber machine gun practice. The firing points were located in what is now the cantonment area for both Range #1 and Range #4. There has been no UXO cleanup completed in this area.

**CLEANUP STRATEGY**

If this site is not picked up by FUDS, then an additional investigation will be planned and a removal action may be needed under MMRP.

**STATUS**

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Negligible Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA .....	200212 .....	200307
RI/FS .....	201110 .....	201209
RD .....	201510 .....	201609
RA(C) .....	201610 .....	201709

**RC: 201709**



# YTCR-005-R-01

## RANGE #10

### SITE DESCRIPTION

Range #10 encompasses 1.70 acres of what is now known as the Selah Canyon Reserve. Currently the area is undeveloped. From 1962-1970, the area was used as a maneuver area for tanks where large caliber practice munitions were used. Range #10 is located east of the current cantonment area, near the eastern edge of Selah Canyon Reserve. The maneuver area firing point lies within operational range area as does a majority of the Range #10 range fan. No UXO cleanup has been conducted in Range #10.

### CLEANUP STRATEGY

Additional investigation will determine remedial action.

### STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Negligible Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA .....	200212 .....	200307
RI/FS .....	201110 .....	201209
RD .....	201510 .....	201609
RA(C) .....	201610 .....	201709
LTM .....	201710 .....	204709

**RC: 201709**

# YTCR-006-R-01

## RANGE #5, #6 AND #7

### SITE DESCRIPTION

Range #5, #6 and #7 encompasses 233.64 acres of closed range land located northeast of the current cantonment area. This closed range area lies within the Selah Canyon Reserve and is currently undeveloped. From 1962-1970, the area was used for small arms training and as a tank maneuver area using practice large caliber munitions. Both the small arms and maneuver area firing points lie within operational range area as does a majority of each firing point's range fans. No UXO cleanup has been conducted on site to date.

### CLEANUP STRATEGY

Additional investigation will determine remedial action.

### STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Low Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA .....	200212 .....	200307
RI/FS .....	201110 .....	201209
RD .....	201510 .....	201609
RA(C) .....	201610 .....	201709
LTM .....	201710 .....	204709

**RC: 201709**

# YTCR-007-R-01

## RANGE #8

### SITE DESCRIPTION

Range #8 encompasses 244.38 acres of land in the Selah Canyon Reserve. The closed range lies east of the current cantonment area with the firing points and some range fan within operational range. From 1962-1970, the range was used for small arms firing. The land is currently undeveloped and no UXO cleanup has been done to date.

### CLEANUP STRATEGY

Additional investigation will determine remedial action.

### STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Negligible Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA .....	200212 .....	200307
RI/FS .....	201110 .....	201209
RD .....	201510 .....	201609
RA(C) .....	201610 .....	201709

**RC: 201709**

# YTCR-008-R-01 RANGE #8A

## SITE DESCRIPTION

Range #8A encompasses 7.15 acres of land intersecting the Selah Canyon Reserve and is currently undeveloped. The majority of range fan area and the firing point of this closed range are located within operational range area. From 1962-1970, Range #8A was used as a small arms range. Currently the area is undeveloped and no UXO clean up has been done to date.

## CLEANUP STRATEGY

Additional investigation will determine remedial action.

## STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** Negligible Risk

**CONTAMINANTS OF CONCERN:**  
UXO

**MEDIA OF CONCERN:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA .....	200212 .....	200307
SI .....	200610 .....	200709
RI/FS .....	201110 .....	201209
RD .....	201510 .....	201609
RA(C) .....	201610 .....	201709

**RC: 201709**

***Initiation of MMRP:*** 2002

***Past Phase Completion Milestones***

**2003**

PA, all sites, July

***Projected ROD/DD Approval Dates:*** Unknown

***Projected Construction Completion:*** 2017

***Schedule for Five Year Reviews:*** None

***Estimated Completion Date of MMRP including LTM:*** 2047

## Yakima Training Center MMRP Schedule

(Based on current funding constraints)

AEDB-R#	PHASE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
YTCR-002-R-01	RIFS									
	RD									201709
	RAC									201809
YTCR-003-R-01	SI									
	RIFS									
	RD									201609
	RAC									201709
	LTM									204709
YTCR-004-R-01	RIFS									
	RD									201609
	RAC									201709
YTCR-005-R-01	RIFS									
	RD									201609
	RAC									201709
	LTM									204709
YTCR-006-R-01	RIFS									
	RD									201609
	RAC									201709
	LTM									204709
YTCR-007-R-01	RIFS									
	RD									201609
	RAC									201709
YTCR-008-R-01	SI									
	RIFS									
	RD									201609
	RAC									201709

***Prior Years Funds*****Funding up top FY04: \$0K**

<b>Year</b>	<b>Site Information</b>	<b>Expenditures</b>	<b>FY Total</b>
<b>FY05</b>		<b>\$0K</b>	<b>\$0K</b>
<b>Total Funding up to FY05: \$0K</b>			

***Current Year Requirements***

<b>Year</b>	<b>Site Information</b>	<b>Expenditures</b>	<b>FY Total</b>
<b>FY06</b>		<b>\$0K</b>	<b>\$0K</b>
<b>Total Funding FY06: \$0K</b>			

***Total Future Requirements: \$32,953K******Total MMR Program Cost (from inception to completion of the MMRP): \$32,953K***

Yakima Training Center does not have a RAB.